

# Introduction to **<HTML>**

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## Topics to Be Covered

- tag basics
- required tags
- body tags
- heading tags
- paragraph tags
- horizontal rules
- list tags
- adding images and links

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## Not Covered

- every possible tag and attribute
- tables, frames, and forms
- WYSIWYG editors

For more on these topics, take the Advanced HTML class.

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## Class Tools

- HTML editor - MS Notepad
- web browser - MS Internet Explorer (4.0)

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## Standard Disclaimer

- Different web browsers display HTML elements differently.
- Not all codes are interpreted by all browsers.
- Remember to **test** your pages accordingly.

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## Tag Basics

- Tag names are enclosed in angle brackets (<TAG>).  
The brackets are also called *less than* and *greater than* signs.

Example: <HTML>

- Tag names are case insensitive.

Examples: <HTML> <Html> <html>

- Some tags are paired--some are “empty.”

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## Paired Tags

- Most tags come in pairs.
- One to turn on a formatting condition, and the other to turn it off.
- Between the two tags is the text that the tag affects.
- The closing tag has a forward slash (/) preceding its name.

Example:

```
<CENTER>text to be centered</CENTER>
```

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## Empty Tags

- Some tags are one-sided. They simply perform a command such as inserting a line break, horizontal line, or an image.

Examples: <BR>  
<HR>  
<IMG SRC="arrow.gif">

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## Required Tags

- HTML (surrounds your entire document)
- HEAD (includes the important TITLE tag)
- BODY (contains everything else)

(All of the above tags are paired.)

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## HTML Tag

- The first (and last tag) in every HTML document.
- This tag indicates that the content of this file is in HTML format.

Example: <HTML>  
your entire file  
</HTML>

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# Lesson 1

In Notepad, type the following:

**<HTML>**

**</HTML>**

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## HEAD Tag

- This tag follows the HTML tag.
- It contains the “prolog” (or header) information about your document.
- There are only a few tags that are nested within the HEAD tag. The most common are:
  - TITLE
  - BASE
  - META

Example: <HEAD>  
    <TITLE>Title text goes here</TITLE>  
  </HEAD>

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## Lesson 2

In Notepad, add the following items (in red below) to your document:

```
<HTML>
<HEAD>
</HEAD>
</HTML>
```

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## TITLE Tag

- The text contained within the TITLE tag identifies your page in a global context.
- The text contained within is usually displayed in the titlebar of your browser.
- It should be meaningful.

Bad Example:

```
<TITLE>Introduction</TITLE>
```

Good Example:

```
<TITLE>NCI Research Lab Report</TITLE>
```

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## Lesson 3

In Notepad, add the following items (in red below) to your document. Substitute my name with yours:

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
</HTML>
```

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## BODY Tag

- Contains most of your document.

```
<BODY>
everything else in your file
</BODY>
```

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## Lesson 4

In Notepad, add the following items (in red below) to your document:

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
<BODY>
</BODY>
</HTML>
```

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## Lesson 4 continued

- Use the File pull-down menu in Notepad to save your file to the floppy disk.
- Name the file A:RESUME.HTM

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## Lesson 4 continued

- Click on the browser window.
- Use the File pull-down menu to open the file named A:RESUME.HTM
- You should see your “blank” page.
- Look at the titlebar.
- Do you see your internal TITLE?



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## Tags and Attributes

- Tags tell the browser to DO something (e.g., insert a heading).
- A tag’s “attributes” (or tag settings) tell the browser HOW to display the tag and its contents (e.g., align the inserted heading a certain way).

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## Attribute Syntax

<TAG ATTRIBUTE="valid value">

- ✓ opening angle bracket
- ✓ valid tag name
- ✓ valid attribute name for tag
- ✓ equal sign
- ✓ double quote sign
- ✓ valid value for named attribute
- ✓ double quote sign
- ✓ closing angle bracket

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## BODY Attributes

- In addition to your text, the BODY tag itself has several “attributes” that can be specified:
  - BACKGROUND (default none)
  - BGCOLOR (default gray)
  - TEXT (default black)
  - LINK
  - VLINK
  - ALINK
- These body attributes give you some control over the overall look of your page, such as the text color.

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## BODY BACKGROUND

- Lets you specify the URL of an image to be “tiled” as a background pattern.
- Appears as a “watermark” on the background.

Example: <BODY BACKGROUND=“sheriff.gif”>

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## BODY BGCOLOR

- Sets the background color of your page.
- Color codes are made up of three 2-digit hexadecimal codes (#RRGGBB) preceded with a # sign. The first two digits represent the amount of red, the second two the amount of green, and the last two the amount of blue.

### Examples:

<BODY BGCOLOR="#FFFFFF"> sets the background color to white  
<BODY BGCOLOR="#000000"> sets the background color to black  
<BODY BGCOLOR="#FF0000"> sets the background color to red  
<BODY BGCOLOR="#00FF00"> sets the background color to green  
<BODY BGCOLOR="#0000FF"> sets the background color to blue

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## Internet Explorer

supports the following standard names

- aqua
- black
- blue
- fuchsia
- gray
- green
- lime
- maroon
- navy
- olive
- purple
- red
- silver
- teal
- yellow
- white

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## Lesson 5

Click on the Notepad window. Add:

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
<BODY BGCOLOR="#FFFFFF">
</BODY>
</HTML>
```

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## Lesson 5 continued

- To quickly save the file, press ALT+F, then S.
- Click on the Refresh button in the browser window.
- Do you see the new background color?

We will come back to BODY attributes in a few minutes. First, let's add a page heading.

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## Headings H1 thru H6 Tag

- H1...H6 tags are a simple way to add *actual* titles and subtitles (called headings) in your document.
- H1 is the largest size type. H6 is *very* small. H3 is about 14pt.

Examples:

```
<H1>This is H1 encoded text.</H1>
<H2>This is H2 encoded text.</H2>
<H6>Do you know what tag produced this?</H6>
```

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## Lesson 6

Click on the Notepad window. Add:

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
<BODY BGCOLOR="#FFFFFF">
<H1>Patricia M. Winkler</H1>
</BODY>
</HTML>
```

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## Lesson 6 continued

- Save in Notepad.
- Refresh your browser.
- Do you see the new heading?

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## <H1> Attributes

- The ALIGN attribute allows you to specify how to justify the heading. The default is left justified.

Examples:

```
<H1 ALIGN="center">Annual Report</H1>
<H1 ALIGN="right">Annual Report</H1>
```

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## Lesson 7

Click on the Notepad window. Add:

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
<BODY BGCOLOR="#FFFFFF">
<H1 ALIGN="center">Patricia M. Winkler</H1>
</BODY>
</HTML>
```

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## Lesson 7 continued

- Save in Notepad.
- Refresh your browser.
- Do you see the new alignment?

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## BODY TEXT

- Changes the default text color from black to that specified.
- May be necessary especially if BGCOLOR is used.

### Examples:

<BODY TEXT="#FFFFFF"> sets the text color to white  
<BODY TEXT="#FF0000"> sets the text color to red  
<BODY TEXT="#FF00FF"> sets the text color to magenta  
<BODY TEXT="#00FFFF"> sets the text color to cyan  
<BODY TEXT="#FFFF00"> sets the text color to yellow

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## Lesson 8

Click on the Notepad window. Add:

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
<BODY BGCOLOR="#FFFFFF" TEXT="#0000FF">
<H1 ALIGN="center">Patricia M. Winkler</H1>
</BODY>
</HTML>
```

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## Lesson 8 continued

- Save in Notepad.
- Refresh your browser.
- What color is the text now?

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## BODY LINK Colors

- BODY LINK="#RRGGBB"  
Changes the default **unvisited** link color from blue to that specified. Example: <BODY LINK="#000000">  
what color is this? black
- BODY VLINK="#RRGGBB"  
Changes the default **visited** link color from purple to that specified. Example: <BODY VLINK="#FF7F00">  
what color is this? orange
- BODY ALINK="#RRGGBB"  
Changes the default black **activated** link color from red to that specified. Note: This color only appears *while* someone is *clicking* on the link. Example:<BODY ALINK="#00FFFF">  
what color is this? cyan

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## HR Tag

- Inserts a horizontal line (rule) in your document.
- The default settings are:
  - 3 pixels high
  - the entire width of the window
  - black in color
  - has drop shadow for 3D effect

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## Lesson 9

Click on the Notepad window. Add:

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
<BODY BGCOLOR="#FFFFFF" TEXT="#0000FF">
<H1ALIGN="center">Patricia M. Winkler</H1>
<HR>
</BODY>
</HTML>
```

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## Lesson 9 continued

- Save in Notepad.
- Refresh your browser.
- Do you see a horizontal line?  
Next we'll specify some HR attributes.

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## HR Attributes

- The SIZE attribute lets you change the line thickness (height).
- The WIDTH attribute allows you to vary the horizontal length of the line.
- The NOSHADE attribute eliminates the default drop shadow on the line.

Examples: <HR>  
<HR SIZE="4" WIDTH="50%">  
<HR NOSHADE>

IE also supports the COLOR attribute.

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## Lesson 10

Click on the Notepad window. Add:

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
<BODY BGCOLOR="#FFFFFF" TEXT="#0000FF">
<H1ALIGN="center">Patricia M. Winkler</H1>
<HR SIZE="6" COLOR="#FF0000">
</BODY>
</HTML>
```

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## Lesson 10 continued

- Save in Notepad.
- Refresh your browser.
- Do you see the changes to the line?

Next we'll add another heading.

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## Lesson 11

Click on the Notepad window. Add:

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
<BODY BGCOLOR="#FFFFFF" TEXT="#0000FF">
<H1 ALIGN="center">Patricia M. Winkler</H1>
<HR SIZE="6" COLOR="#FF0000">
<H2>Education</H2>
</BODY>
</HTML>
```

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## Lesson 11 continued

- Save in Notepad.
- Refresh your browser.
- Do you see the new heading?

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## Paragraph Tags

- There are two tags that help format body text to make it more readable.

<BR>

inserts a line break code (ending the line and moving back to the left margin), and

<P>a large block of text</P>

breaks the line and adds an additional blank line.

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## <P> Attributes

- The ALIGN attribute allows you to specify how to justify the paragraph. The default is left justified.

### Examples:

```
<P ALIGN="center">This is a sample paragraph of text that I am including in my document to test the alignment attribute.</P>
```

```
<P ALIGN="right">This is a sample paragraph of text that I am including in my document to test the alignment attribute.</P>
```

```
<P ALIGN="justify">This is a sample paragraph of text that I am including in my document to test the alignment attribute.</P>
```

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## Lesson 12

Click on the Notepad window. Add:

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
<BODY BGCOLOR="#FFFFFF" TEXT="#0000FF">
<H1ALIGN="center">Patricia M. Winkler</H1>
<HR SIZE="6" COLOR="#FF0000">
<H2>Education</H2>
<P>B.A., Wayne State University, Detroit,
Michigan, 1984</P>
</BODY>
</HTML>
```

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## Lesson 12 continued

- Save in Notepad.
- Refresh your browser.
- Do you see the new paragraph?

Next we'll add some more breaks, a heading, and some text.

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## Lesson 13

- Click on the Notepad window. Add:

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
<BODY BGCOLOR="#FFFFFF" TEXT="#0000FF">
<H1 ALIGN="center">Patricia M. Winkler</H1>
<HR SIZE="6" COLOR="#FF0000" >
<H2>Education</H2>
<P>B.A., Wayne State University, Detroit, Michigan, 1984</P>
<BR>
<H2>Work Experience</H2>
<BR>
Senior Instructor, 1991 - present<BR>
National Institutes of Health, Bethesda, Maryland
<BR>
</BODY>
</HTML>
```

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## Lesson 13 continued

- Save in Notepad.
- Refresh your browser.
- Do you see the new paragraphs?

Next we'll look at the list tags.

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## List Tags

- Three list types are supported: ordered, unordered, and definition lists. They use the following tags:

- Ordered

```
<OL>  
<LI>item text  
</OL>
```

- Unordered

```
<UL>  
<LI>item text  
</UL>
```

- Definition

```
<DL>  
<DT>term</DT>  
<DD>definition</DD>  
</DL>
```

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## Ordered Lists

- For lists that are preceded with numbers, use the `<OL>` tag.

Example: `<OL>`  
`<LI>Go to class.`  
`<LI>Do your homework.`  
`<LI>Get an A.`  
`</OL>`

Results: 1. Go to class.  
2. Do your homework.  
3. Get an A.

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## OL Attributes

- The `TYPE` and `START` attributes allows you to specify number styles other than Arabic and what value to start on other than 1.
- Valid `TYPE` values include:
  - “A” - to produce capital letters
  - “a” - lowercase letters
  - “I” - uppercase Roman numerals
  - “i” - lowercase Roman numerals

Example: `<OL TYPE=“i” START=“3”>`  
(produces small Roman numerals starting at iii)

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## Unordered Lists

- For lists that are preceded with bullets, use the <UL> tag.

Example: <UL>  
<LI>Cats  
<LI>Dogs  
<LI>Horses  
</UL>

Results: • Cats  
• Dogs  
• Horses

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## UL Attributes

-Navigator Only-

- The TYPE attribute allows you to change the default bullet type from the default “disc” (solid bullet).
- Other valid values are:
  - “circle” - a hollow bullet
  - “square” - a hollow square bullet

Example: <UL TYPE=“square”>

- PLAIN attribute will create a list without bullets.
- These attributes are not supported in IE 3.0

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## A List Trick

- To make something indented, you can use the unordered list. Include the item you want indented inside the `<UL>` tags without any `<LI>` tags.

Example: `<UL>`  
text to be indented  
`</UL>`

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## Lesson 14

- Click on the Notepad window. Add:

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
<BODY BGCOLOR="#FFFFFF" TEXT="#0000FF">
<H1 ALIGN="center">Patricia M. Winkler</H1>
<HR SIZE="6" COLOR="#FF0000" >
<H2>Education</H2>
<P>B.A., Wayne State University, Detroit, Michigan, 1984</P>
<BR>
<H2>Work Experience</H2>
<BR>
Senior Instructor, 1991 - present<BR>
National Institutes of Health, Bethesda, Maryland
<BR>
<H3> Significant Accomplishments:</H3><BR>
<UL>
<LI>Create, revise, and teach classes
<LI>Evaluate and arrange vendor training
<LI>Write New User column for web-based e-zine
</UL>
</BODY>
</HTML>
```

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## Lesson 14 continued

- Save in Notepad.
- Refresh your browser.
- Do you see the list?

Next we'll look at character enhancement.

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## Character Style Tags

- There are several paired tags that can be used to add special emphasis to your text.
- They are considered *physical* styles--they tell your browser how the text should appear.

Examples: <B>This text is bold.</B>  
<I>This text is italicized.</I>  
<U>This text is underlined.</U>

Results: **This text is bold.**  
*This text is italicized.*  
This text is underlined.

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## Logical Style Tags

- Before the widespread use of graphical interfaces, HTML used the logical styles **emphasis**<EM></EM> and **strong**<STRONG></STRONG> (and others) to change the text appearance.
- Browsers generally show EM and STRONG as italic and bold.

Examples: <EM>This text is emphasized.</EM>  
<STRONG>This text is strong.</STRONG>

Results: *This text is emphasized.*  
**This text is strong.**

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## Lesson 15

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
<BODY BGCOLOR="#FFFFFF" TEXT="#0000FF">
<H1 ALIGN="center">Patricia M. Winkler</H1>
<HR SIZE="6" COLOR="#FF0000" >
<H2>Education</H2>
<P>B.A., Wayne State University, Detroit, Michigan, 1984</P>
<BR>
<H2>Work Experience</H2>
<BR>
<B>Senior Instructor</B>, 1991 - present<BR>
National Institutes of Health, Bethesda, Maryland
<BR>
<H3><I>Significant Accomplishments:</I></H3><BR>
<UL>
<LI>Create, revise, and teach classes
<LI>Evaluate and arrange vendor training
<LI>Write NewUser column for web-based e-zine
</UL>
</BODY>
</HTML>
```

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## Lesson 15 continued

- Save in Notepad.
- Refresh your browser.
- Do you see the enhanced text?

Next we'll look at images.

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## IMG Tag

- Most browsers can display inline images (graphics) that are in GIF, JPG, or XMB format.
- Each image takes time to load and can delay the initial display of the document. Therefore, select your images wisely.
- The SRC attribute is required to specify the image source.

Example:

```
<IMG SRC="firewire.gif">
```

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## IMG Attributes

- The HEIGHT and WIDTH attributes may be used to stretch or shrink an image into an allotted space.

Example:

```
<IMG SRC="firewire.gif" HEIGHT="70" WIDTH="150">
```

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## Alignment Attributes

- By default, the bottom of an image is aligned with the text that follows.
- The ALIGN attribute allows you to specify the type of alignment you want for the text that follows the image.

Examples:

```
<IMG SRC="firewire.gif" ALIGN="top">  
<IMG SRC="firewire.gif" ALIGN="middle">
```

Related Attribute:

```
<IMG SRC="firewire.gif" ALIGN="right">  
aligns the image itself on the right
```

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## Images Without Text

- To display an image without any associated text around it (e.g., a logo), make it a separate paragraph.

Example:

```
<P ALIGN="center">
<IMG SRC="firewire.gif">
</P>
```

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## Final Word on Images

- There is an ALT attribute that allows you to substitute something meaningful in place of the image on browsers that cannot display it.

Example:

```
<IMG SRC="firewire.gif" ALT="[Flaming Logo]">
```

- The LOWSRC attribute allows you to specify a lower resolution image for fast loading that is automatically replaced with the actual SRC image.

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## Lesson 16

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
<BODY BGCOLOR="#FFFFFF" TEXT="#0000FF">
<H1 ALIGN="center">Patricia M. Winkler</H1>
<HR SIZE="6" COLOR="#FF0000" >
<IMG SRC="turnbook.gif"><H2>Education</H2>
<P>B.A., Wayne State University, Detroit, Michigan, 1984</P>
<BR>
<IMG SRC="scissors.gif"><H2>Work Experience</H2>
<BR>
<B>Senior Instructor</B>, 1991 - Present<BR>
National Institutes of Health, Bethesda, Maryland
<BR>
<H3><l>Significant Accomplishments:</l></H3><BR>
<UL>
<LI>Create, revise, and teach classes
<LI>Evaluate and arrange vendor training
<LI>Write NewUser column for web-based e-zine
</UL>
</BODY>
</HTML>
```

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## Lesson 16 continued

- Save in Notepad.
- Refresh your browser.
- Do you see the images?

Next we'll look at adding a link.

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## Adding a Link

- To create links between documents you use the `<A>` tag.
- The `HREF` attribute is used to specify the name or location that the link is pointing to.
- The text between the pair of anchor tags will appear as *linked text* (underlined in most browsers).

Examples:

```
<A HREF="http://livewire.nih.gov">LiveWire</A>
<A HREF="New_User-1.htm">New User</A>
```

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## Relative Vs. Absolute

- Specifying relative path names allows you to move your documents around with little or no modifications to fix the links.

Relative Example:

```
<A HREF="about.htm">About LiveWire</A>
```

Absolute Example:

```
<A HREF="/c/cover/about.htm">About LiveWire</A>
```

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## Lesson 16

```
<HTML>
<HEAD>
<TITLE>Resume of Pat Winkler, 12/97</TITLE>
</HEAD>
<BODY BGCOLOR="#FFFFFF" TEXT="#0000FF">
<H1ALIGN="center">Patricia M. Winkler</H1>
<HR SIZE="6" COLOR="#FF0000" >
<IMG SRC="turnbook.gif"><H2>Education</H2>
<P>B.A., Wayne State University, Detroit, Michigan, 1984</P>
<BR>
<IMG SRC="scissors.gif"><H2>Work Experience</H2>
<BR>
<B>Senior Instructor</B>, 1991 - Present<BR>
<A HREF="http://www.nih.gov">National Institutes of Health</A>, Bethesda,
Maryland
<BR>
<H3><I>Significant Accomplishments:</I></H3><BR>
<UL>
<LI>Create, revise, and teach classes
<LI>Evaluate and arrange vendor training
<LI>Write NewUser column for web-based e-zine
</UL>
</BODY>
</HTML>
```

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## Lesson 16 continued

- Save in Notepad.
- Refresh your browser.
- Do you see the link?

Next is our last topic, the <ADDRESS> tag.

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## <ADDRESS> Tag

- Used to create “signature-block” text on pages.
- Text included is usually displayed in italics.

Example:

```
<ADDRESS>
Pat Winkler<BR>
Building 12A Room 1033<BR>
National Institutes of Health</ADDRESS>
```

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## Lesson 17

Click on the Notepad window. Add the following to the **bottom** of your file:

```
</UL>
<HR SIZE="6" COLOR="#FF0000">
<ADDRESS>
<A HREF="mailto:winklerp@exchange.nih.gov">Pat Winkler</A><BR>
Building 12A Room 1033<BR>
National Institutes of Health</ADDRESS>
</BODY>
</HTML>
```

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## Lesson 17 continued

- Save in Notepad.
- Refresh your browser.
- Do you see the address (with link)?

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## Troubleshooting

- Look for misspellings.
- Look for overlapping links.
- Remember to test the results in your browser.

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## References

- URLs
- Textbooks
  - ***HTML The Definitive Guide*** by Chuck Musciano & Bill Kennedy (O'Reilly & Associates)
  - ***Build a Web Site in a Day*** by Thomas Wrona & Elisabeth Parker (Ventana)
  - ***Teach Yourself Web Publishing with HTML 3.2 in a Week*** by Laura Lemay (Sams.net)
  - ***Creating Your Own Web Pages*** by Andy Shafran (Que)
  - ***Teach Yourself Great Web Design in a Week*** by Anne-Rae Vasquez-Peterson & Paul Chow (Sams.net)